

Childhood accidental deaths on farms in Northern Ireland

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SUMMARY.

Deaths to children on farms in Northern Ireland over a five year period are reviewed. There were seventeen such deaths, the majority of which involved farm machinery. The circumstances of the accidents are described in order to highlight the preventable aspects of these accidents.

INTRODUCTION

The Regional Strategic Framework for Northern Ireland Health and Personal Services (1992-1997)¹ makes particular mention of accidents and sets a target of a reduction of 15% in the annual number of deaths by 1997. It further states that “special emphasis should be placed on preventing accidents to children”.

Farms are particularly hazardous for children²⁻⁷. A recent review of deaths on farms in England, Wales and Scotland reported 26 deaths of children aged 0-14 years over a four year period⁸. Not all of these deaths were directly related to farming activity or were among children living on a farm. The most common accident was associated with farm machinery. In a study of farm accidents presenting to four hospitals in Ireland in 1986 four deaths occurred, three of them involving tractors and one a drowning on a farm². The authors concluded that tractors and their equipment are the dominant cause of both fatal and non-fatal accidents on farms and stressed the need to educate families about these hazards. Tractors are also the most common piece of machinery involved in fatal injuries amongst children on farms in the United States³⁻⁶. All of the farm injuries described were potentially preventable by proper counselling on safety, supervision of children, and use of automatic safety devices⁷.

METHOD.

The information in this paper was obtained as part of a review of all accidental death in childhood in Northern Ireland over the five year period 1984-1988⁹. Sources included the Registrar General's Annual Reports and unpublished records held by the Registrar General, the Annual Reports of the Health and Safety Inspectorate of the Department of Agriculture, and information from the Coroner's reports for that period.

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The Department of Agriculture has a statutory duty to investigate all deaths which take place on a farm or in a location associated with agriculture. All accidental deaths must be reported to the Coroner for the district in which the death took place, who is responsible for investigating the circumstances and is charged specifically with the identification of the victims, deciding when they died and how the death came about¹⁰.

RESULTS

There were 12 boys and 5 girls killed in farming accidents between 1984 and 1988 (Table).

TABLE

<i>Age (years)</i>	<i>Nos.</i>
0-4	9
5-9	4
10-14	4

Table. Ages of children killed in farming accidents 1984-1988.

All the children who died were related to the family who were living on the farm. Four deaths resulted from younger children falling into open pits containing semi-liquid agricultural products. The children were often at play close to the family home but unsupervised and with access to the typical structures of a farm environment.

Thirteen accidents involved either tractors or other farm machinery. These deaths can be broadly divided into three groups by age of victim: a group of very young infants, who were killed when a tractor reversed over them in the farmyard; an older age group who were involved in accidents while they were actually operating the tractor or other machinery; and an intermediate group who were killed after falling from a tractor which was being driven, in all cases, by an older relative.

Location and season of death.

Fifteen of the deaths occurred at the site of the accident, only two dying later in hospital. The highest number of deaths occurred in April and July, with no deaths occurring during the winter months (Fig).

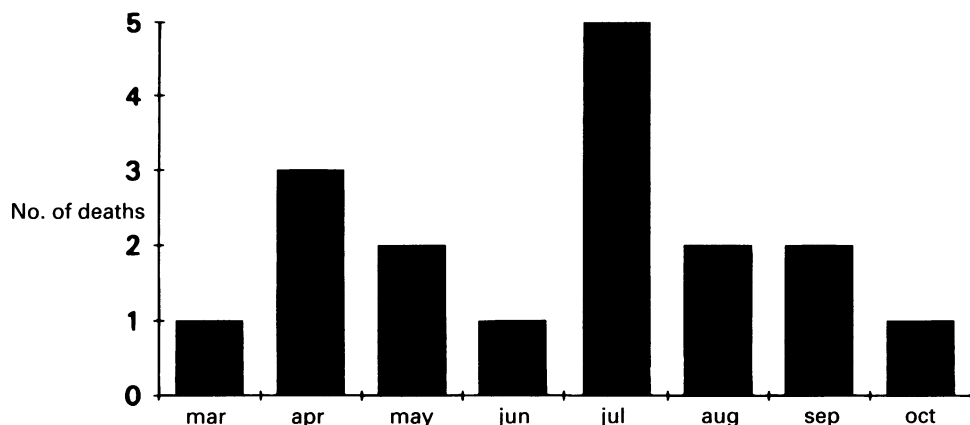


Figure. Farming related childhood accidental deaths 1984-1988 by month.

DISCUSSION.

This category of accidental death is not always included in statistics from other countries or areas, yet it is the third largest cause of accidental death in childhood in Northern Ireland, after road traffic accidents and fires which caused 125 and 25 childrens deaths respectively over the same period⁹. There are no figures available for the number of children who live in farming households in Northern Ireland so it is impossible to tell whether the rate of accidental death is higher among these families than those who live in urban areas. However it is likely to be those children who live on farms or who have regular access to them who will be at greater risk of accidental injury or death.

The types of accidental death at different age groups reflect the different sets of circumstances and risk factors which operate, at the same time, in an environment that is both home and a place of work. For the children of a farming family, the farmyard is their playground, but it is unfortunately filled with agents of injury that may not be compatible with their safety. Increased access to dangerous machinery is a part of their everyday life. The dangers of transporting children in the comparative safety of an enclosed car are well known and this risk exists also on tractors. Children of a farming family may also participate in the daily economic activity on the farm. As such they are then also exposed to the risks of a dangerous working environment. That most of the deaths occurred at the site of the accident reinforces both the serious nature of the accidents and the importance of primary prevention rather than concentration on secondary trauma care.

If these accidents are to be prevented farming parents of small children, like their counterparts in the town and city, should be conscious of the risk to the child at play.⁴ Workers on farms must be aware of the changes they should make in their working practices to avoid injury to small children.

The seasonal incidence of the accidents reflects the increase in farming activity and the timing of the school holidays allowing children to be involved in this activity. It should be possible to concentrate preventive information and advice to highlight the need for caution at these times.

Health visitors, family doctors, childminders and teachers in contact with children in a rural environment must also be aware of the specific dangers to which these children are exposed. Local health promotion initiatives should aim to supply these educators with the appropriate information and training. Legislation concerning safe working practices already exists in the agricultural environment, and these regulations must be enforced more rigorously by the Health and Safety Inspectorate. Lay organisations, such as the Ulster Farmers Union and the Young Farmer's Association should also make child accident prevention part of their agenda.

Training courses at the local agricultural college could incorporate accident prevention into the curriculum and local radio and television programmes on farming could give time to highlight the dangers of the farm to young children.

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